

Appln. No. 10/708,051
Docket No. PES-D-03-008 / PES-0188

REMARKS / ARGUMENTS

Status of Claims

Claims 1-30 are pending in the application. Claims 1-30 stand rejected. Applicant provides herein clarifying remarks regarding Claims 1-30, and has added new Claims 31 and 32, leaving Claims 1-32 for consideration upon entry of the present Amendment.

Applicant respectfully submits that the rejections under 35 U.S.C. §102(e) and 35 U.S.C. §103(a) have been traversed, that no new matter has been entered, and that the application is in condition for allowance.

Rejections Under 35 U.S.C. §102(e)

Claims 1-5, 8-15, and 18-30 stand rejected under 35 U.S.C. §102(e) as being anticipated by Czajkowski et al. (U.S. Patent No. 6,503,649, hereinafter Czajkowski).

Applicant traverses this rejection for the following reasons.

Applicant respectfully submits that “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, *in a single prior art reference.*” *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). Moreover, “[t]he identical invention must be shown in as complete detail as is contained in the *** claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Furthermore, the single source must disclose all of the claimed elements “arranged as in the claim.” *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

Dependent claims inherit all of the limitations of the respective parent claim.

Appln. No. 10/708,051
Docket No. PES-D-03-008 / PES-0188

Regarding Independent Claim 1

In rejecting Claim 1 as being anticipated, the Examiner alleges "...a first power converter [Fig. 1 converter system 40 in the first power conversion module 13; col. 6. lines 49-52] including: a plurality of interchangeable power converter modules [Fig. 1 modular converters 42; col. 8 lines 13-24], and *a first motherboard configured to receive the plurality of interchangeable power converter modules* [col. 7 lines 1-6-modular construction; *though a circuit board is not mentioned, placing power electronics on circuit cards is standard in the industry*]; wherein a power rating of the first power converter is capable of being changed by adjusting a number of the interchangeable power converter modules attached to the first motherboard [Figs. 1 and 2; col. 8 lines 13-24; col. 6 lines 56-67 and col. 7 lines 1-6; col. 6 lines 16-21 the overall converter]. *With respect to the motherboard/circuit board, it is implicit from Fig 1 or Fig 2 that the modules would be implemented in circuit cards given by the dashed outlines of each power conversion module 12 or 13*]." (Paper 1, page 2) (Emphasis added).

In comparing Czajkowski to the present invention, Applicant finds Czajkowski to disclose "Each power conversion unit 12 contains at least one *independent* modular power converter subsystem 40 to provide the desired voltage, current and wave form as a supply output 41. Preferably, converter subsystem 40 comprises a plurality of *independent modular converters* 42, including dc to ac and dc to dc converters providing both ac and dc outputs. Preferably *a bank* formed by a plurality of converters 42 provide a desired voltage current and waveform in a redundant manner so that a plurality of switching devices can connect the converter to a plurality of ac or dc load circuits" (emphasis added) (Czajkowski, col. 8, lines 14-24).

Applicant submits that the combination of a bank of *independent*, modular converters, as disclosed by Czajkowski, is distinguished from the claimed "...*power converter* including: a plurality of interchangeable power converter *modules*, and a first *motherboard configured to receive the plurality of interchangeable power converter modules* wherein a *power rating* of the first power converter is *capable of being changed* by *adjusting a number of the interchangeable power converter modules attached to the*

Appln. No. 10/708,051
Docket No. PES-D-03-008 / PES-0188

first motherboard as claimed for in Claim 1. Applicant submits that the function of the claimed interchangeable power converter modules is not provided ***independent of the motherboard configured to receive the plurality of interchangeable power converter modules***, as is the function of Czajkowski's ***independent modular converters***.

Additionally, the Examiner remarks that "*though a circuit board is not mentioned, placing power electronics on circuit cards is standard in the industry*" (Paper Mail Date 1, page 2). Applicant respectfully submits that absent anticipatory disclosure in a single prior art reference of each and every element of the claimed invention arranged as claimed, Czajkowski cannot be anticipatory.

Furthermore, the Examiner remarks that "*With respect to the motherboard/circuit board, it is implicit from Fig 1 or Fig 2 that the modules would be implemented in circuit cards given by the dashed outlines of each power conversion module 12 or 13*". (Paper Mail Date 1, pages 2-3. Applicant respectfully disagrees that Fig 1 or Fig 2 imply the necessary existence of "*a motherboard configured to receive the plurality of interchangeable power converter modules*" as claimed, as Czajkowski discloses a plurality of power conversion units 12 in banks 13 (Figs. 1 and 2) that appear to be unrelated to *a motherboard configured to receive the plurality of interchangeable power converter modules*. In Figures 1 and 2 of Czajkowski, the power conversion units 12 in banks 13 appear to be the modules, not the *motherboard configured to receive the plurality of modules*, as claimed. Also, for an implicit reasoning to adequately support an anticipatory rejection, Applicant respectfully submits that the implied structure must *necessarily* be present in the prior art reference, which Applicant submits Czajkowski fails to do.

Accordingly, Applicant submits that Czajkowski does not disclose each and every claim element *arranged as in the claim*, and absent anticipatory disclosure in Czajkowski of each and every element of the claimed invention arranged as in the claim, Czajkowski cannot be anticipatory.

Regarding Independent Claim 11

As set forth above in response to Claim 1, Applicant submits that for at least the

Appln. No. 10/708,051
Docket No. PES-D-03-008 / PES-0188

same reasons Czajkowski does not disclose each and every claim element arranged as in Claim 11.

Further, in alleging anticipation by Czajkowski of Claim 11, the Examiner remarks, inter alia, "Czajkowski discloses... a first power source [Fig. 2 banked storage #1]; an electrochemical cell [Fig 2 banked fuel cell stacks #1]; ... a first power converter [Fig. 2 banked dc to ac converters #1] adapted for conditioning electrical current flow between the first power source and the electrochemical cell..." (Paper 1, page 5)

In respectful disagreement with the Examiner, Applicant finds Czajkowski to disclose "The energy storage system 36 may be made of a plurality of storage cells ... The storage system 36 buffers out load-induced transients and surges or deficits from the fuel cell unit 30 and fuel-flow system 28..." (Col. 6, lines 42-47). "Each power conversion unit 12 contains at least one independent modular *power converter subsystem 40 to provide the desired voltage, current and wave form as a supply output 41.*" (Col. 8, lines 14-17).

In view of the disclosure in Czajkowski, Applicant submits that the power converter of Czajkowski is adapted for conditioning electrical current flow between the storage cell/fuel cell unit combination and the power load, which is distinguished from the claimed "...a first power converter adapted for conditioning electrical current flow between the first power source and the electrochemical cell...."

Accordingly, Applicant submits that Czajkowski does not disclose each and every claim element arranged as in the claim, and absent anticipatory disclosure in Czajkowski of each and every element of the claimed invention arranged as in the claim, Czajkowski cannot be anticipatory.

Regarding Independent Claim 22

As set forth above in response to Claim 1, Applicant submits that for at least the same reasons, Czajkowski does not disclose each and every claim element arranged as in Claim 22.

Additionally, the Examiner remarks, inter alia, "...[the limitations of this Claim have been addressed by the preceding Claim arguments]." (Paper Mail Date 1, page 7).

Appln. No. 10/708,051
Docket No. PES-D-03-008 / PES-0188

In respectful disagreement with the Examiner, Applicant submits that Czajkowski is absent disclosure of the claimed "...configuring the first power converter such that its power rating is adjustable by changing a number of interchangeable power converter modules attached to a first motherboard of the first power converter", and submits that the Examiner's general reference to "the limitations of this Claim have been addressed by the preceding Claim arguments" fails to establish a prima facie case of anticipation.

Accordingly, Applicant submits that Czajkowski does not disclose each and every claim element arranged as in the claim, and absent anticipatory disclosure in Czajkowski of each and every element of the claimed invention arranged as in the claim, Czajkowski cannot be anticipatory.

Regarding Dependent Claims 8 and 18 More Specifically

The Examiner alleges "Czajkowski discloses the first DC output from the first half-module and the second DC output from the second half-module are controlled by the controller [col. 9, lines 52-56]." (Paper 1, page 4).

In respectful disagreement with the Examiner, Applicant finds Czajkowski to disclose "A bank 116 of dc to ac converters 42 is similarly controlled in response to the controller 20 to maintain and regulate sufficient current..." (Czajkowski, col. 9, lines 52-56).

As such, Applicant submits that Czajkowski is lacking disclosure of the claimed "...first DC output from the first half-module and the second DC output from the second half-module are controlled by the controller", as claimed for in Claims 8 and 18.

Accordingly, Applicant submits that Czajkowski does not disclose each and every claim element arranged as in the claim, and absent anticipatory disclosure in Czajkowski of each and every element of the claimed invention arranged as in the claim, Czajkowski cannot be anticipatory.

In view of the foregoing remarks, Applicant submits that Czajkowski does not disclose each and every element of the claimed invention arranged as claimed and therefore cannot be anticipatory. Accordingly, Applicant respectfully submits that the

Appln. No. 10/708,051
Docket No. PES-D-03-008 / PES-0188

Examiner's rejections under 35 U.S.C. §102(e) have been traversed, and requests that the Examiner reconsider and withdraw these rejections.

Rejections Under 35 U.S.C. §103(a)

Claims 6, 16, 7 and 17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Czajkowski in view of Nomura (U.S. Publication No. 2001/0012207, hereinafter Nomura).

Applicant traverses these rejections for the following reasons.

Applicant respectfully submits that the obviousness rejection based on the References is improper as the References fail to teach or suggest each and every element of the instant invention in such a manner as to perform as the claimed invention performs. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention are taught or suggested in the prior art. MPEP §2143.03.

Dependent claims inherit all of the limitations of the respective parent claim and any intervening claim.

The Examiner acknowledges that Czajkowski is deficient in anticipating the claimed invention, and looks to Nomura to cure these deficiencies.

Claims 6, 7, 16, and 17 are dependent claims. In view of Applicant's remarks set forth above regarding the allowability of the parent claim over Czajkowski, Applicant submits that Claims 6, 7, 16, and 17 are allowable at least for the reason that they depend from an allowable claim. Accordingly, Applicant submits that Claims 6, 7, 16, and 17 are now allowable, and respectfully requests notice of allowance thereof.

In view of the foregoing, Applicant submits that the References fail to teach or suggest each and every element of the claimed invention and are therefore wholly inadequate in their teaching of the claimed invention as a whole, fail to motivate one skilled in the art to do what the patent Applicant has done, and therefore cannot properly

Appln. No. 10/708,051
Docket No. PES-D-03-008 / PES-0188

be used to establish a prima facie case of obviousness. Accordingly, Applicant respectfully requests reconsideration and withdrawal of all rejections under 35 U.S.C. §103(a), which Applicant considers to be traversed.

In light of the forgoing, Applicant respectfully submits that the Examiner's rejections under 35 U.S.C. §102(e) and 35 U.S.C. §103(a) have been traversed, and respectfully requests that the Examiner reconsider and withdraw these rejections.

Regarding New Claims 31 and 32

Applicant has added new Claims 31 and 32, which depend from Claim 11, to now claim disclosed but previously unclaimed subject matter. No new matter has been added as antecedent support may be found in the application as originally filed, such as at Paragraphs [0019] through [0022] for Claim 31, and Paragraph [0024] for Claim 32, for example.

In view of the remarks set forth above regarding the allowability of Claim 11, Applicant submits that new Claims 31 and 32 are directed to allowable subject matter and respectfully requests entry and notice of allowance thereof.

Appln. No. 10/708,051
Docket No. PES-D-03-008 / PES-0188

The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 06-1130.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above identified Deposit Account.

Respectfully submitted,

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